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A point of sale advertising system

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# ABSTRACT

The present invention discloses a point of sale (POS) advertising system at which point of sale equipment such as a scanner (2) is used when a product is to be purchased. The scanner output is used to trigger a CPU (10) which in turn causes an advertisement related to the purchased product to be displayed by means of a scheduler (14) and a display (18). In this way a purchaser can be exposed to either a reinforcing advertisement for a related product, or a combative advertisement for a competing product, at the time of purchase.



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FOR A STANDARD PATENT

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Details of Basic Application: Australian Provisional Patent Application  
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The following statement is a full description of this invention, including the best method of performing it known to us:

12 FEB 2001  
Sydney

The present invention relates to a point of sale (POS) advertising system which finds particular application at the check-outs of supermarkets.

At present at the check-out of supermarkets there are many static advertisements which do not have much impact because shoppers are relatively jaded and tend to regard such

5 advertisements as being merely "background noise". At present, as the products purchased by the shopper are scanned at the supermarket check-out, the bar code contained on the product when scanned triggers the display of a product name (usually abbreviated) together with the price of the product. This information is fundamentally provided to enable the shopper to confirm the scanning operation is proceeding correctly.

10 In recent times the computer system involved with the check-out facilities has been upgraded to enable the display of video advertisements which are thought to be more attention getting.

The object of the present invention is to increase the impact of such advertisements by providing a link between the product purchased and the content of such advertisements.

15 In accordance with the first aspect to the present invention there is disclosed a method of displaying advertising which is linked to point of sale data, said method comprising the steps of:

- (a) recording a point of sale transaction, and
- (b) causing said transaction to trigger display of a related advertisement.

20 In accordance to the second aspect the present invention there is disclosed a point of sale display system for displaying advertising which is linked to point of sale data, said system comprising POS means to record point of sale data, a memory store to hold preselected advertisements and being connected to a scheduler, a display connected to

said scheduler and positioned to be visible by a customer making a sales transaction via said POS means, and said POS means and said scheduler each being connected to a central processing unit whereby a sale transaction recorded by said POS means and transmitted to said central processing unit triggers said scheduler to display one of said  
5 preselected advertisements, being an advertisement related to the product sold in said sales transaction.

In accordance with a third aspect of the present invention there is disclosed a method of promoting an offer which is linked to point of sale data, said method comprising the steps of:-

- 10 (a) recording a point of sale transaction, and  
(b) causing said transaction to print or otherwise issue said offer.

In accordance with a fourth aspect of the present invention there is disclosed a point of sale display system for promoting an offer which is linked to point of sale data, said system comprising POS means to record point of sale data, a memory store to hold  
15 preselected offers and being connected to a printer positioned to be visible by a customer making a sales transaction via said POS means, and said POS means and said printer each being connected to a central processing unit whereby a sale transaction recorded by said POS means and transmitted to said central processing unit triggers said printer to print or issue said offer.

- 20 The prior art and an embodiment of the present invention will now be described with reference to the drawings in which:

Fig. 1 is a perspective view of a first form of prior art supermarket checkout,

Fig. 2 is a schematic blocked diagram of the computer system is to operate the check-out of Fig. 1.

Fig. 3 is a view similar to Fig. 1 but of a second form of prior art supermarket check-out,

Fig. 4 is a view similar to Fig. 2 but of the computer system used to operate the computer  
5 check-out of Fig. 3,

Fig. 5 is an enlarged front elevation of the display 8 of Fig. 3 and 4,

Fig. 6 is a view similar to Figs. 1 and 3 but of the preferred embodiment of the present  
invention, and

Fig. 7 is a view similar to Figs. 2 and 4 but illustrating the computer system used to  
10 operate the supermarket check-out of Fig. 6.

As seen in Fig. 1, the conventional supermarket check-out takes the form of a bench 1  
onto which products selected by the customer are unloaded by the customer and the  
products are then scanned over a scanner 2. The check-out operator is provided with a  
cash register 3 having a cash draw 7. As each product is scanned abbreviated details  
15 which identify the product and the price of the product are displayed on a pole display 4  
to enable the customer to verify that the product has been accurately scanned. After all  
products have been scanned, a request for a total is input into the cash register which  
results in the cash draw 7 being opened and a docket being printed on docket printer 6.  
This cycle is repeated for each customer.

20 Turning now to Fig. 2, the computer control system which manages the above process is  
illustrated and takes the form of central processing unit 10 to which the scanner 2, cash  
register 3, pole display 4, docket printer 6 and cash draw 7 are connected. The central  
processing unit 10 undertakes various tasks including calculating the change to be offered

to the customer, recognising the bar codes scanned by the scanner 2, sending printing instructions to the printer 6, and so on.

In addition, each of the various check-outs of the supermarkets has its own central processing unit 10 and each is connected by means of a cable 12 to a main central  
5 processing unit 11 of the supermarket. If the supermarket is part of a national chain, as is generally the case, then the main CPU 11 is in turn able to transmit data regarding purchases to a further computer maintained at the chain's headquarters.

In an effort to increase advertising revenue for the supermarket, and increase the impact of advertising on customers, the traditional arrangement as indicated in Figs. 1 and 2 has  
10 been modified in recent times in order to take the form indicated in Figs. 3 and 4. In Fig. 3 the cash register 3 has essentially being replaced by a first display 5 which normally includes a touch sensitive screen and thus permits the operator to input data as well as to see the results of the scanning operation. The pole display 4 has been replaced by a  
15 second display 8 which, as indicated in Fig. 5, is divided into two segments, a point of sale segment 17 and an advertisement segment 18.

The scanning of products purchased by customer proceeds as before. As the scanning proceeds a column of scanned, and therefore purchased, items progressively builds on the point of sale segment 17. This live display essentially creates the same data normally printed on a sales docket by the docket printer 6.  
20 As the customer wishes to verify that the products being scanned are correctly scanned, the customer's attention is directed to the second display 8 and so the advertisement segment 18 is placed alongside the point of sale segment 17 in order that various advertisements be displayed thereon. The primary function of such advertisements as far

as the supermarket is concerned is to increase revenue through the sale of advertising time. The main purpose of such advertisements as far as the advertiser is concerned is to reinforce product loyalty and to direct the advertisements specifically at that member of family or household which actually carries out the purchasing.

5 As seen in Fig. 4 the computer system which controls the abovementioned prior art operation is essentially as before save that a scheduler 14 is connected via a drive line 13 to the advertisement segment 18 of the second display 8. The point of sale segment 17 of display is connected to the CPU 10 in the same manner that the CPU 10 of Fig. 2 was connected to the pole display 4.

10 The memory store 15 contains a repertoire of advertisements and these are displayed on the advertisement segment 18 of each of the second displays 8 of the supermarket in accordance with some pre-determined schedule where the time of advertisement, the frequency of advertisements, and the like, is determined by the wishes of the various advertisers. In particular, each of the second displays 8 carries the same advertisement at  
15 the same time. That is to say the signals on each of the drive lines 13 are identical.

With the foregoing by way of introduction, the preferred embodiment of the present invention will now be described in relation to Fig. 6. In Fig. 6 the apparatus of the supermarket check-out is essentially as in Fig. 3 save that, if desired, an input device accessible to the customer can be provided either in the form of a keyboard 16 as  
20 illustrated and/or in the form of providing at least the advertisement segment 18 of the display 8 with a touch sensitive screen.

The computer system illustrated in Fig. 7 is modified from that illustrated in Fig. 4 by means of a POS link 19 which inter connects the CPU 10 and the scheduler 14. It will be



appreciated that the scheduler is similarly connected by means of POS links 19 to each of the other check-outs.

Now when a product purchased by a customer is scanned on the scanner 2, the CPU 10 identifies the product and alerts the scheduler 14. If the manufacturer of that particular product has purchased advertising time, the scanning of the product triggers an advertisement, which is related to the product, to be displayed on the advertising segment 18. The operation of the POS segment 17 continues as before and the advertisement which is downloaded from the memory store 15 via scheduler 14 is displayed on the advertisement segment 18 and so is able to be watched by the customer. During this time other products are scanned by the scanner 2, however, whilst the advertisement is being displayed the scheduler 14 is only able to store and sequence further advertisements relating to the subsequently scanned products. These are displayed subsequently when a prior advertisements finishes. At the conclusion of the purchase when the total is produced, any undisplayed advertisements are deleted by the scheduler 14 since a new customer is expected to enter the check-out and hence the advertisements to be displayed should relate to that particular customer.

It follows from the above that each of the check-outs is displaying different advertisements at different times. That is to say, the signals on the drive lines 13 are each different. Similarly, the signals on each of the POS links 19 are also different and this needs to be accommodated by the scheduler 14. This can be accommodated as indicated in Fig. 1 by a single multi-line scheduler 14. In the alternative, each check-out can be provided with its own scheduler 14 which then results in the memory store 15 communicating with a plurality of schedulers 14.

In a first form of advertisement, the advertisement can be positively related to the product being purchased. This may be regarded as "reinforcing" advertising. For example, if the scanner 2 detects the purchase of can of COCA COLA (Registered Trade Mark), the related advertisement could be either for COCA COLA or a sister product such as

5 SPRITE (Registered Trade Mark). Alternatively, the advertising may be "combative" advertising in which the scanning of a purchased can of COCA COLA results in an advertisement for "PEPSI" (Registered Trade Mark). A still further form of advertising is "associative" where a purchase of, say, coffee results in display of an advertisement for TIM TAMS (Registered Trade Mark) chocolate biscuits.

- 10 Furthermore, the advertisement displayed on the advertisement segment 18 can also include promotional offers which are linked to the goods scanned on the scanner 2. Where the keyboard 16 or touch screen is provided, a purchaser may respond to a promotional offer by, for example, keying in the purchaser's telephone number which enables their name and address to be ascertained from a data base maintained by the
- 15 telephone company. Such customers are then able to receive complimentary products, questionnaires, and like marketing material by mail or telephone.

- Further, the CPU 10 can be loaded with a number of promotional offers, coupons redeemable for value, and like which are triggered by specific product purchases determined by scanning the product bar code. The offer, coupon or the like, once
- 20 triggered, can be printed by the printer 6 at the same time as the purchaser's docket is printed and preferably on the same piece of paper.

In addition, the scheduler 14 can be pre-programmed to display advertisements in response to the bar code scanned or in a particular sequence, or for a specific duration, or at a specific time, or any combination of these characteristics.

The foregoing describes only one embodiment of the present invention and  
5 modifications, obvious to those skilled in the art, can be made thereto without departing from the scope of the present invention. For example, the document printer 6 can be used to print an entry from which can be given to the customer following purchase of a pre-determined quantity of a particular product. The customer is then able to fill out the entry form and place same in a receptacle provided for that purpose within the supermarket.

- 10 The term "comprising" as used herein is used in the inclusive sense of "having" or "including" and not in the exclusive sense of "consisting only of".

The claims defining the invention are as follows:

1. A method of displaying advertising which is linked to point of sale data, said method comprising the steps of:
  - (a) recording a point of sale transaction, and
  - (b) causing said transaction to trigger display of a related advertisement.
2. The method as claimed in claim 1 wherein said related advertisement is of the product purchased in the sale transaction or of a product related thereto.
3. The method as claimed in claim 1 wherein said related advertisement is of a product which competes with the product purchased in the sale transaction.
4. The method as claimed in claim 1 wherein said related advertisement is of a product the consumption of which is normally associated with the product purchased in the sale transaction.
5. The method as claimed in any one of claims 1-4 wherein step (a) is accomplished by scanning a bar code.
6. A method of displaying advertising, said method being substantially as herein described with reference to Figs. 6 and 7 of the drawings.
7. A point of sale display system for displaying an offer which is linked to point of sale data, said system comprising POS means to record point of sale data, a memory store to hold preselected advertisements and being connected to a scheduler, a display connected to said scheduler and positioned to be visible by a customer making a sales transaction via said POS means, and said POS means and said scheduler each being connected to a central processing unit whereby a sale transaction recorded by said POS means and transmitted to said central

processing unit triggers said scheduler to display one of said preselected advertisements, being an advertisement related to the product sold in said sales transaction.

8. The system as claimed in claim 7 wherein said related advertisement is of the product purchased in the sale transaction or of a product related thereto.
9. The system as claimed in claim 7 wherein said related advertisement is of a product which competes with the product purchased in the sale transaction.
10. The system as claimed in claim 7 wherein said related advertisement is of a product the consumption of which is normally associated with the product purchased in the sale transaction.
11. The system as claimed in any one of claims 7-10 having a plurality of POS means each connected to said scheduler.
12. The system as claimed in any one of claims 7-10 having a plurality of POS means each connected to a corresponding scheduler, all said schedulers being connected to said memory store.
13. A point of sale system substantially as herein described with reference to Fig. 7 of the drawings.
14. A method of displaying advertising of a promotional offer which is linked to point of sale transaction data, said method comprising the steps of:
  - (a) recording predetermined point of sale transaction data corresponding to a point of sale transaction; and
  - (b) causing said transaction to trigger the display of advertising of a related promotional offer, being a promotional offer related to said point of sale transaction.

15. The method as claimed in claim 14 wherein the promotional offer is printed or otherwise issued.
16. A point of sale display system for displaying advertising of a promotional offer which is linked to point of sale transaction data, said system comprising point of sale means to record predetermined point of sale data corresponding to a point of sale transaction; and a memory stored to hold pre-selected advertising promotional offers and being connected to an advertising promotional offer output device, said point of sale means and said advertising promotional offer output each being connected to a central processing unit whereby a sale transaction recorded by said point of sale means is transmitted to said central processing unit causing the triggering the display of said promotional offer from said output device to issue said promotional offer which is a promotional offer related to said point of sale transaction.
17. The system as claimed in claim 16 wherein said advertising promotional offer output device is a printer.

Dated this 4th day of October 2006

KOYOO TECHNOLOGY PTY

LIMITED

By

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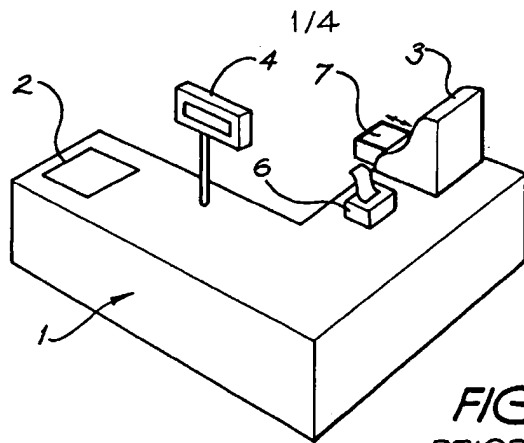


FIG. 1  
PRIOR ART

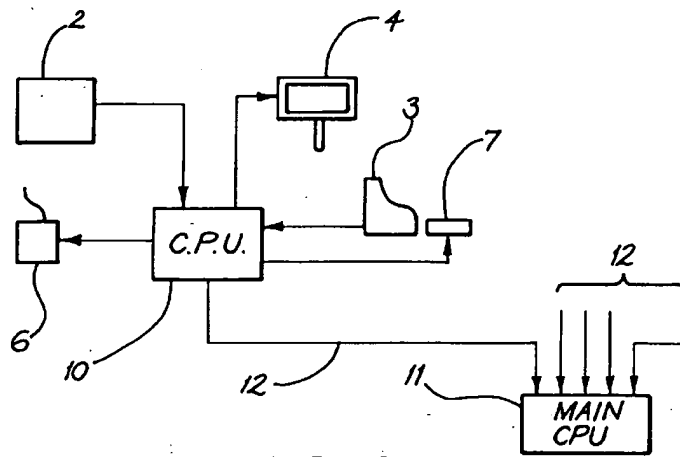
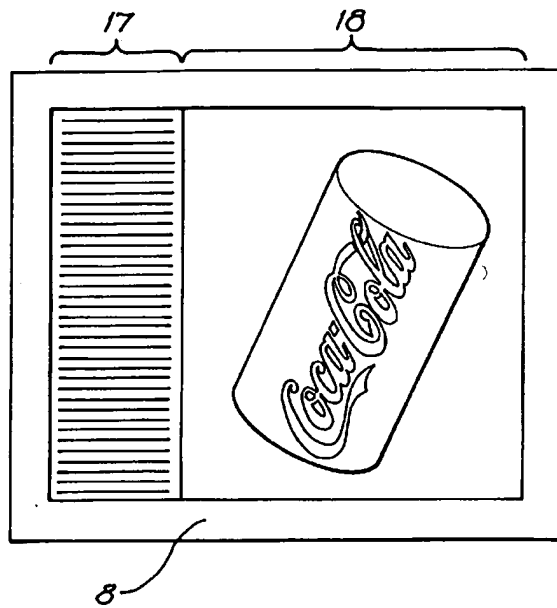


FIG. 2  
PRIOR ART





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**FIG. 5**  
PRIOR ART

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